Reconstructing the sistrum

David Crookes

Anyone who uses unit 11 of the *Cambridge Latin Course* knows what a sistrum looks like, A few weeks ago I began to wonder what the instrument *sounded* like, and executed a reconstruction based on both iconography and surviving specimens. The job turned out to be very simple. so [thought I would give some account of it he re in case any OMNIBUS readers want to join the guild of σειστροποιουντες. (I may say that the central tenet of my organologist's creed is: don't *talk* about an instrument if you can play it; and if you haven't got one to play, then make one, One shake of a home-made sistrum, like one note from Tutankhamen's trumpet, will take you back to ancient times more certainly than acres of scholarly prose.)

Not liked by evil spirits

Since the end of antiquity European society has set such a low value on percussion that it is difficult for us modems to take the sistrum seriously, especially since instruments of the shaken rattle class are nowadays played almost exclusively by babies! It is therefore important to understand the sistrum's *real function.* So far from being a component member of the ancient orchestra, it is not a *musical* instrument at all; rather, like the shofar of the Jewish synagogue and the bell of the Roman Catholic mass, it is an instrument of worship and cult practice. When I played my sistrum to a second-year Latin class no one was fearfully impressed, but then the instrument was being used outside its familiar context. By corollary, when the bell sounds during mass, or the shofar during synagogue service, nobody giggles. The same applies to the rite of the Ethiopian Coptic church, in which the sistrum is still used today under the name of *tsenatsil* – a fascinating survival from pagan Egypt.

The sistrum appears to have originated in black Africa, where it can still be found among some tribes. It figured with great frequency in the cultic practice of Egypt (firstly in the worship of Hathor, and then in that of Isis); and while in matters of organology the opinions of anthropologists must be treated with great caution, we need not quarrel with the received notion of the sistrum's function as apotropaeic – intended to ward off inimical or evil spirits. The instrument spread to other Near Eastern civilizations; for example, by the end of the 3rd millennium BC, a highly developed form of the Hattian sistrum had become associated with the cult of Cybele in Anatolia. Only much later, when Isis-worship began to impinge on the Roman world, did the use of the sistrum become widespread.

DIY instructions

The Egyptian sistrum had two main forms: one arciform and made of metal, the other in the form of a shrine and made of faience. For those who find pottery easier than metalwork, or vice versa, I figure and de scribe simple arciform reconstructions in both clay and metal. Unlike the violin and the oboe the sistrum does not have a one-and-only morphology or set of dimensions, so I leave some details of shape and size to the reader's devisement.

Making a clay sistrum

Mould the handle according to taste and skill – you can range from a simple cylinder, pommelled at the bottom, to a complex zoomorphic or anthropomorphic figure. Mould the arch from a strip of clay 1¼” by 7/16”, preferably around a wooden former, cut equidistant ½” holes for the rods with a metal tube, and attach the handle carefully. If you like, add a tiny moulded ornament at the top of the arch. Let the clay dry, then sand and fire it. Now insert cylindrical rods of 3/8" diameter, and curl them around at the ends. Paint the inside of the holes with molten wax before fitting the rods, and support the latter while they dry along their full length. Fire the instrument again with the rods in place, taking great care to support each rod in the kiln so that at no point does it actually touch the sides of the holes.

Making a metal sistrum

Take a suitable length of mild steel bar ¾” wide and either 1/8” or 1/16" thick (1/16" is much easier to work with). At the ends cut central tangs 2" by ¼”, bend these over the anvil at approximately a right angle (clamping the bar to the anvil surface, and hammering each tang over the side), form the two corners similarly, and then shape the arch around a prepared hardwood former. Shaping the arch is the most difficult part of the job, and may be left to a metalwork teacher if you don't feel up to it! Now take a boxwood chisel handle (available from any tool shop), drill it centrally at the ferruled end with a hole 2" deep and 1/4", or 5/16" in diameter, according as the bar is respectively 1/16" or 1/8" thick, half-fill this with rapid Araldite, hammer the two tangs side by side into the hole, and leave the Araldite to dry after cleaning off any expelled surplus. Then hold the arch in a vice, mark centres for the holes with a centre punch, drill I/8" pilot holes, and enlarge these up to 5/16" (doing it in two stages like this means that you can use a hand-held electric drill without difficulty).

Now cut suitable lengths of 1/4”, mild steel rod. Curl one end of each rod on the anvil (if you can heat it red with a blowlamp before hammering, so much the better), fit the rod into its holes, hold the curled end tight against the arch, and curl the other end over the anvil. Check that the curl on each side is sufficiently pronounced to stop the rod being shaken out. Clean off with a file any roughness on the curled ends.

Some ancient sistra had loose discs on the rods to create additional sound (the *tsenatsil* still has these). It is an easy matter to fit each rod with four or five steel washers (7/8” diameter, with a 5/16" hole) if you want a sistrum of this kind.

Now play it (seriously)

There is a noticeable difference in sound between the ceramic and metallic instruments: the faience sistrum is a rattle with a rather dry sound, but the metal one has a jingling tone reminiscent of a triangle or a cycle-bell. Some aspects of playing technique can be deduced from the iconography. The instrument was held well down the handle, obviously to maximize the shaking distance, and effectively precluding a very rapid shake. In the case of the metal sistrum the best sound is elicited by shaking in quavers at crotchet = c. 140. Hold the instrument upright when playing, and aim for a continuous ringing note like that of an alarm clock.

In closing, a word of caution. We insult the people of earlier ages when we ridicule their instruments on the basis of improperly played reconstructions. (The recently revived serpent, for example, has suffered horribly in the last decade at the hands of performers who blame the instrument for their own complete incompetence.) The sistrum was a serious instrument with a serious purpose and an optimum sound. Don't play it as if you were enacting some marvellous joke, and don't even think of playing it in front of other people until you've done at least an hour's practice.

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